CLAIMS:

1.　　A method [Fig. 5] for validating code in a mark-up language document, the method comprising:

providing a schema;

providing an instance document;

comparing the instance document to the schema;

determining if the instance document contains an error section based upon the comparing step;

if there is an error, determining if there are a plurality of logical sections of the schema possibly related to the error section; and

determining a probability value for each of the plurality of logical sections that indicates a relationship between the error section and a respective logical section.

2.　　The method of claim 1 wherein the schema comprises an extensible markup language (XML) schema.

3.　　The method of claim 2 wherein the plurality of logical sections include sub-elements of a <choice> </choice> tag pair.

4.　　The method of claim 3 wherein the sub-elements at least two <sequence></sequence> groups.

5.　　The method of claim 1 further comprising the step of providing the probability value for each of the plurality of logical sections to a user.

6.　　The method of claim 1 further comprising the step of predicting which of the plurality of logical sections the error section should conform to based upon the probability values for each of the logical sections.

7.　　The method of claim 1 wherein the probability value for each of the plurality of logical sections is based upon a number of correct tags that appear in the

error section as compared to a respective logical section of the schema divided by a total number of tags within the respective logical section.

8.   A computer readable medium [see Fig. 5] storing a computer program comprising:

computer readable for providing a schema;

computer readable for providing an instance document;

computer readable for comparing the instance document to the schema;

computer readable for determining if the instance document contains an error section based upon the comparing step;

computer readable for if there is an error, determining if there are a plurality of logical sections of the schema possibly related to the error section; and

computer readable for determining a probability value for each of the plurality of logical sections that indicates a relationship between the error section and a respective logical section.

9.   The computer readable medium of claim 8 wherein the schema comprises an extensible markup language (XML) schema.

10.   The computer readable medium of claim 9 wherein the plurality of logical sections include sub-elements of a <choice> </choice> tag pair.

11.   The computer readable medium of claim 10 wherein the sub-elements at least two <sequence></sequence> groups.

12.   The computer readable medium of claim 8 further comprising computer readable code for providing the probability value for each of the plurality of logical sections to a user.

13.   The computer readable medium of claim 8 further comprising computer readable code for predicting which of the plurality of logical sections the error section should conform to based upon the probability values for each of the logical sections.

14.　　The computer readable medium of claim 11 wherein the probability value for each of the plurality of logical sections is based upon a number of correct tags that appear in the error section as compared to a respective logical section of the schema divided by a total number of tags within the respective logical section.

15.　　A device [see Fig. 5] for validating code in a mark-up language document, the device comprising:

an interface for receiving a schema and an instance document;

a memory; and

a processor coupled to the interface and the memory,

wherein the processor is arranged execute code stored in the memory to validate the instance document against the schema, determine if the instance document contains an error section based upon the comparison, if there is an error, determine if there are a plurality of logical sections of the schema possibly related to the error section, and determine a probability value for each of the plurality of logical sections that indicates a relationship between the error section and a respective logical section.

16.　　The device of claim 15 wherein the schema comprises an extensible markup language (XML) schema.

17.　　The device of claim 16 wherein the plurality of logical sections include sub-elements of a <choice> </choice> tag pair.

18.　　The device of claim 17 wherein the sub-elements at least two <sequence></sequence> groups.

19.　　The device of claim 15 further comprising a display and wherein the processor is further arranged execute code to provide the probability value for each of the plurality of logical sections to a user.

20.   The device of claim 15 wherein the processor is further arranged execute code to predict which of the plurality of logical sections the error section should conform to based upon the probability values for each of the logical sections.

21.   The device of claim 15 wherein the probability value for each of the plurality of logical sections is based upon a number of correct tags that appear in the error section as compared to a respective logical section of the schema divided by a total number of tags within the respective logical section.